



## Preliminary Ignition Investigation Report

|  |   |
|--|---|
| <b>Ignition Database Index:</b>  | 20240434  |
| <b>Electric Incident Investigation (EII) Number:</b>   | N/A   |
| <b>Incident Name:</b>  | Tower – 18 May 2024   |
| <b>PG&amp;E Facility Ignition?</b>   | Yes   |
| <b>CPUC Reportable Ignition?</b>   | Yes   |
| <b>Date &amp; Time of Incident:</b>  | May 18, 2024 @ 1157 hours   |
| <b>Street Address:</b>   | In the vicinity of Towerline Road and Bena Road   |
| <b>City:</b>   | Bakersfield   |
| <b>County:</b>   | Kern  |
| <b>Latitude/Longitude:</b>   | 35.345419, -118.794749  |
| <b>State Responsibility Area (SRA) / Local Responsibility Area (LRA) / Federal Responsibility Area (FRA)</b> | State Responsibility Area (SRA)   |
| <b>PG&amp;E Division:</b>  | Kern  |
| <b>High Fire Threat District (HFTD):</b>   | Tier 2  |
| <b>High Fire Risk Area (HFRA):</b>   | Yes   |
| <b>EPSS Buffer:</b>  | No  |
| <b>Fire Index Area (FIA):</b>  | 445   |
| <b>Fire Potential Index (FPI) Rating: FIA</b>  | R2  |
| <b>Fire Potential Index (FPI) Rating: Circuit</b>  | R2  |
| <b>Was there a PSPS event at the time of ignition?</b>   | No  |
| <b>Suspected Initiating Event:</b>   | Contact - 3 <sup>rd</sup> Party   |
| <b>Failure Driver:</b>   | Contact from object   |
| <b>Failure Sub-driver:</b>   | Contact - Balloon   |
| <b>Circuit:</b>  | Lamont 1104   |
| <b>Circuit Protection Zone:</b>  | LR3855  |
| <b>Nominal Voltage:</b>  | 12kV  |
| <b>Pole SAP Equipment ID:</b>  | SAP Pole ID: 100188519 (Load Side) and SAP Pole ID: 100188528 (Source Side)                 |
| <b>Subject to PRC 4292 Veg Pole Clearance:</b>   | Yes   |
| <b>PG&amp;E Equipment associated with ignition:</b>  | Conductor   |
| <b>EPSS enabled at time of ignition?</b>   | Yes   |
| <b>Fault Type:</b>   | Line to line  |
| <b>Wire Down (Primary)?</b>  | No  |
| <b>Lead Agency/Agency Having Jurisdiction:</b>   | Kern County Fire Department   |
| <b>Fire Size:</b>  | Seven acres (based on HAWC summary)   |
| <b>FAS Field Remarks:</b>  | Found mylar balloon in primary first south of CGC#517632967260 which started grass fire and |

|   |   |
|---|---|
|   | caused outage. Additionally found a burnt crossarm due to bird nest at SAP 10#100188539. Opened jumpers to isolate line, entered tag and called for crew to replace crossarm.   |
| <b>HAWC Summary:</b>  | Resources responded to a vegetation fire near landfill property north of Neumarkel Road and Bena Road. Fire is reported as forward progress stopped at approximately 7 acres. OMT reported an outage in the area affecting 109 customers on LAMONT 1104 EPSS-enabled circuit, OIS# 2462198. Per ILIS comments, mylar balloon into wires. Initial/Final Epage sent. HAWC Ops and PSS were engaged with notifications made to DCC. Final update unless conditions change. |
| <b>Injuries / Fatalities / Property Damage / Media Attention:</b> | No/No/No/No   |
| <b>Weather Conditions:</b>  | It was a fair, warm, and dry day, 78.7° @ 1210 hours on May 18, 2024, near the incident location.   |
| <b>Red Flag Warning (RFW) / High Wind Warning (HWW):</b>          | No/No   |
| <b>911 Standby Relief Time:</b>                                   | N/A   |
| <b>OIS #:</b>   | 2462198   |
| <b>ILIS #:</b>  | 24-0067495  |
| <b>FAS #:</b>   | T006397612-Completed, T006397616-Cancelled and T006397639-Assist  |
| <b>TOTL #:</b>  | N/A   |
| <b>Assigned Attorney:</b>   | N/A   |
| <b>Ignition Investigator &amp; Phone:</b>                         |   |

## Executive Summary

On May 18, 2024, at approximately 1205 hours, PG&E dispatched a troubleshooter in response to multiple SmartMeter™ auto-generated outage reports in the vicinity of Towerline Road and Bena Road, Bakersfield CA. The ignition occurred on a three-phase primary overhead segment of the Lamont 1104 12kV Distribution Circuit (see Figure 1 and 2), in a Tier 2 High Fire Threat District (HFTD), High Fire Risk Area (HFRA), State Responsibility Area (SRA), during Fire Potential Index (FPI) R2 conditions. PG&E's Enhanced Powerline Safety Settings (EPSS) were enabled for this circuit at the time of the incident.

The PG&E troubleshooter arrived on scene at approximately 1221 hours and observed a fire. The troubleshooter indicated that a metallic balloon had contacted the conductor near distribution pole SAP Pole ID: 100188519. Remnants of the mylar balloon were still visible near the incident pole on the conductor (see Figures 3, 4 and 5). The remnants were not retained for further analysis.

The fire is listed as the "Tower" fire in the Hazard Awareness Wildfire Command (HAWC) fire activity report. The ensuing fire was alerted through the AlertCalifornia program on the Lamont1 wildfire camera. A full wildland

dispatch for vegetation fire was initiated, with units responding at 1236 hours. The fire had spread to about seven acres (based on HAWC summary) in size and was suppressed by Kern County Fire Department on May 18, 2024, (see Figure 6). There were no damages to PG&E equipment warranting repair.

Meteorology data pulled from the MesoWest weather observation site that was approximately 3.5 miles east-southeast of the Incident Location indicating it was a warm day at 78.7°F with a relative humidity of 42%. Winds registered 4.7 Miles Per Hour (MPH) with gusts up to 10.5 MPH at the approximate time of the incident. Relative humidity was as high as 58 % at 0610 hours and as low as 31% at 1900 hours.

California Assembly Bill AB-847, Electrically Conductive Balloons, was passed and signed into law by the California Governor on September 18, 2022. The law states that a person who manufactures a balloon in this state, that is constructed of electrically conductive material, to permanently mark each balloon with, among other things, a statement warning consumers about the dangerous risk of fire if the balloon comes in contact with an electrical power line. Section 22942 of the Business and Professions Code (D)(2) [here](#) specifies that one hundred percent of the person's foil balloons shall comply no later than four years from the commencement date which is September 18, 2026.

Additionally, as of May 22, 2024, PG&E continues to educate the public by providing additional safety tips on helium-filled metallic balloons [here](#).

## System Protection Analysis

PG&E's Distribution Asset Planning team confirmed that Enhanced Powerline Safety Settings (EPSS) were enabled for the Lamont 1104 12kV distribution circuit at the time of the ignition. On May 18, 2024, Line Recloser (LR) 3855 detected a Phase-Phase fault, tripped, and stayed opened with no reclosing which occurred at approximately 1157 hours. (LR) 3855 was EPSS-enabled on May 16, 2024, set to Mode 3, with Sensitive Ground Fault (SGF) set and Down Conductor Detection (DCD) enabled, although it did not trip on these targets. A Line-to-Line (LL) fault occurred when a metallic balloon contacted overhead conductors, causing a flash, near pole SAP Pole ID: 100188519. No Partial Voltage (PV) alarms were registered for this ignition. LR 3855 registered a fault on the trip between the B (771 amps) and C (801 amps) phases, causing it to operate, deenergizing the line in a total clearing time of 92 milliseconds; operating as designed.

## Ignition Impact

This ignition on May 18, 2024, resulted in a vegetation fire that was seven acres in size. The associated outage from this fire affected a total of 109 customers for a total of 15,988 customers minutes. PG&E is not aware of any injuries, fatalities, media attention or property damage associated with this ignition.

## Sequence of Events

This report is preliminary and based on available information as of **May 20, 2024**; event data is subject to change based upon subsequently discovered information.

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May 18, 2024

- 1157 hours: First event - First No Light (FNL) - 109 customers affected by outage.
- 1201 hours: Line Recloser 3855 open.
- 1205 hours: Troubleshooter dispatched.
- 1221 hours: Troubleshooter arrives onsite.
- 1329 hours: Troubleshooter reports broken crossarm not related to fire six poles south of CGC# 517632967260. Opened jumpers nine poles east of CGC# 517594967067 to isolate.
- 1416 hours: Line Recloser 3855 Closed, 106 customers power restored.
- 1855 hours: Jumpers nine poles east of CGC# 517594967067 closed, three additional customers power fully restored, (109 Total).

### Corrective Notification Associated with Ignition

None.

### Pending Work

| Type             | Number | Description | Priority | Date Identified | Due Date |
|------------------|--------|-------------|----------|-----------------|----------|
| EC Notification  | N/A    |             |          |                 |          |
| COE Notification | N/A    |             |          |                 |          |
| LC Notification  | N/A    |             |          |                 |          |
| Veg Work Order   | N/A    |             |          |                 |          |

Please note this may not include pending major program or project work at the incident location.

### Asset Info & Most Recent Inspections and Tests

| Source Side Structure      |                  |   |
|----------------------------|------------------|---|
| Info / Inspection          | Most Recent Date | Findings  |
| Install Date:              | January 1, 1953  | Western Red Cedar – Class 5 – Height 35’  |
| Inspection:                | May 25, 2022     | No compelling abnormal conditions to report for the inspection in accordance with GO165         |
|                            | July 27, 2021    | GO165 inspection record noted Connector, incorrectly installed, Replace. Report a New EC        |
| Patrol:                    | N/A              |   |
|                            | N/A              |   |
| Corrective History:        | July 27, 2021    | Notification # 121805093 submitted for insulinks installed on primary-Replace – Tag still open. |
| Aerial Inspection Records: | N/A              | No Aerial Inspection record available   |
| VM Inspection:             | N/A              |   |

|                      |                   |                                |
|----------------------|-------------------|--------------------------------|
| EVM Inspection:      | N/A               |                                |
| Equipment Test:      | N/A               |                                |
| Pole Intrusive Test: | December 14, 2010 | Passed with 100% wood strength |
| WSIP Inspection:     | N/A               | No WSIP record available       |

\*Incident Location: SAP Pole ID: 100188528

| Load Side Structure        |                   |   |
|----------------------------|-------------------|---|
| Info / Inspection          | Most Recent Date  | Findings  |
| Install Date:              | January 1, 1953   | Douglas Fir – Class 4 – Height 40’  |
| Inspection:                | May 25, 2022      | No compelling abnormal conditions to report for the inspection in accordance with GO165 |
|                            | July 27, 2021     | No compelling abnormal conditions to report for the inspection in accordance with GO165 |
| Patrol:                    | N/A               |   |
|                            | N/A               |   |
| Corrective History:        | N/A               | No corrective history found.  |
| Aerial Inspection Records: | N/A               | No Aerial Inspection record available   |
| VM Inspection:             | N/A               |   |
| EVM Inspection:            | N/A               |   |
| Equipment Test:            | N/A               |   |
| Pole Intrusive Test:       | December 14, 2010 | Passed with 100% wood strength  |
| WSIP Inspection:           | N/A               | No WSIP record available  |

\*Incident Location: SAP Pole ID: 100188519

### Hazard Barrier Analysis:

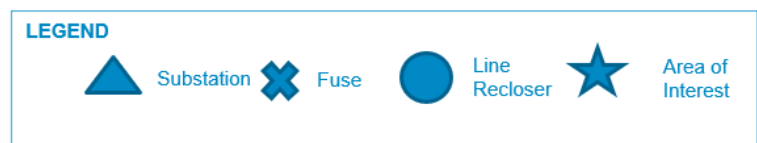
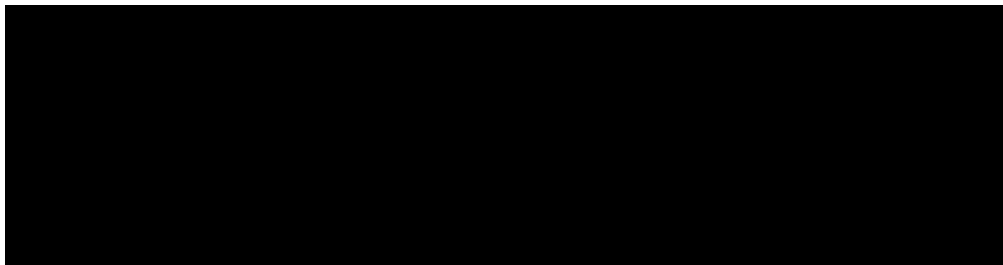
| Hazard                                     | Third-Party Contact   | Sub-Hazard  | Balloon Contact |
|--|---|---|-----------------|
| Target                                     | Ballon contact caused a vegetation fire that was seven acres in size. |   |                 |
| Barrier                                    | Expected vs. Observed Performance                                     | Why did the barrier not prevent the ignition event? | Opportunity     |
| Barriers that Positively Affected Ignition |   |   |                 |

|  |  |                          |   |
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| Pole Clearing Program                        | Expected Performance: Clear ground vegetation around certain poles to reduce fire spread potential; Observed Performance: Barrier performed as expected                        | N/A                      | Previous pole clearing at this location prevented the fire encroaching our asset SAP Pole ID: 100188521 [See Figure 3]  |
| Utility Defensible Space                     | Expected Performance: Reduce the likelihood of rapid-fire development or impact in proximity to PG&E assets; Observed Performance: Barrier performed as expected               | N/A                      | Pole clearing helped to reduce fire spread to PG&E assets [See Figure 3]  |
| Wildfire and Smoke Detection Cameras         | Expected Performance: Enable faster response through detection of wildfires and smoke via standard and AI-enabled cameras; Observed Performance: Barrier performed as expected | N/A                      | The ensuing fire was alerted through the AlertCalifornia program on the Lamont1 wildfire camera. A full wildland dispatch for vegetation fire was initiated, with units responding at 1236 hours.                                       |
| Barriers that were Assessed as Opportunities |  |                          |   |
| AB 847 - Electrically Conductive Balloons    | Expected Performance: Prevent mylar balloon contact.; Observed Performance: Barrier performed as expected  | [ <a href="#">here</a> ] | AB-847 has been in effect since September 18, 2022, and as of September 18, 2023, manufacturers are required to have 25% of their foil balloons in compliance. Full enforcement of this Bill will be implemented on September 18, 2026. |

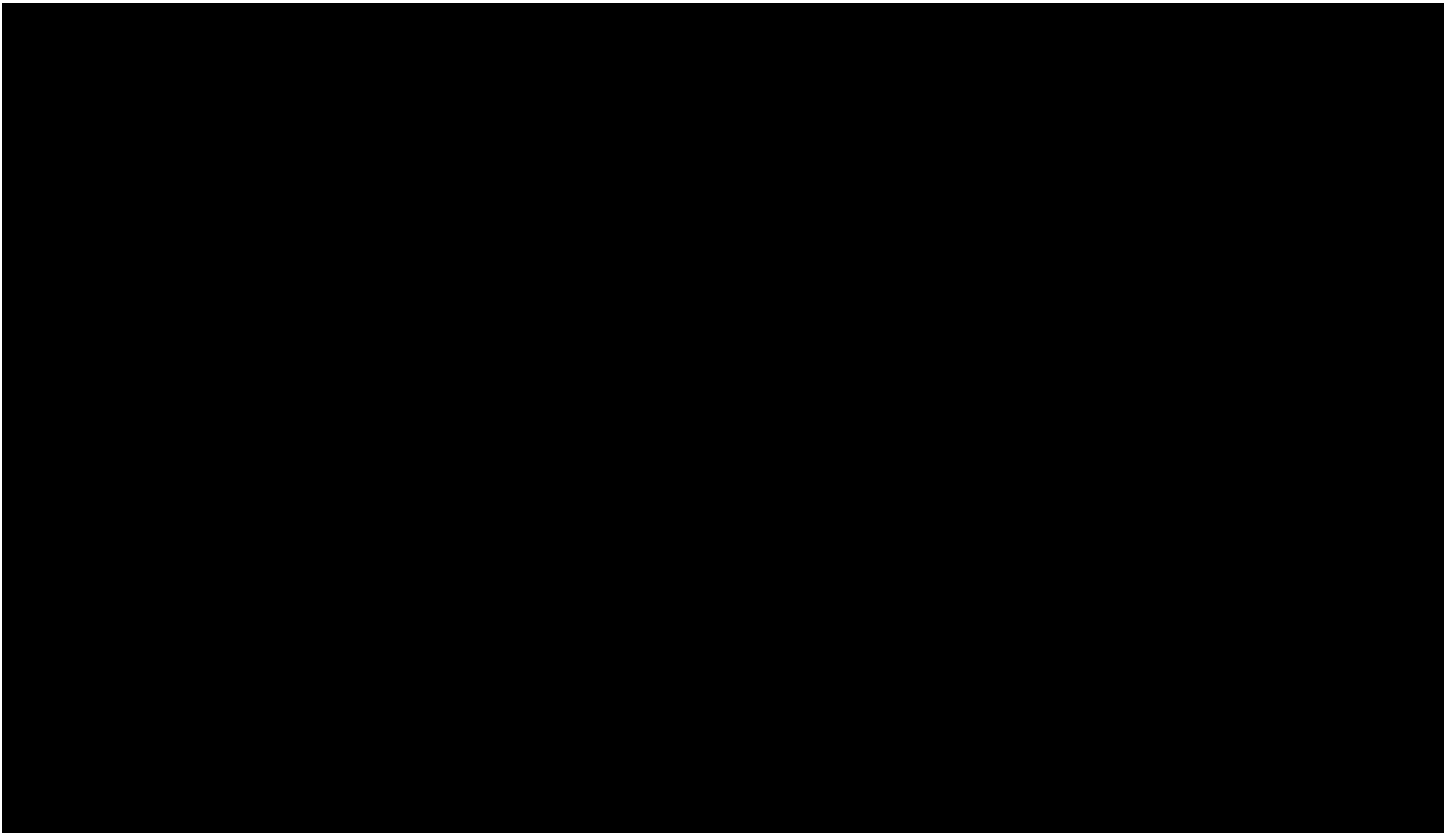
### Potential Next Steps / Associated CAP Items:

- California assembly Bill AB-847 Electrically Conductive Balloons ([Here](#)). Ongoing awareness is essential, and this topic should be consistently discussed at Town Hall public meetings and regularly on social media platforms.

### Single Line Diagram

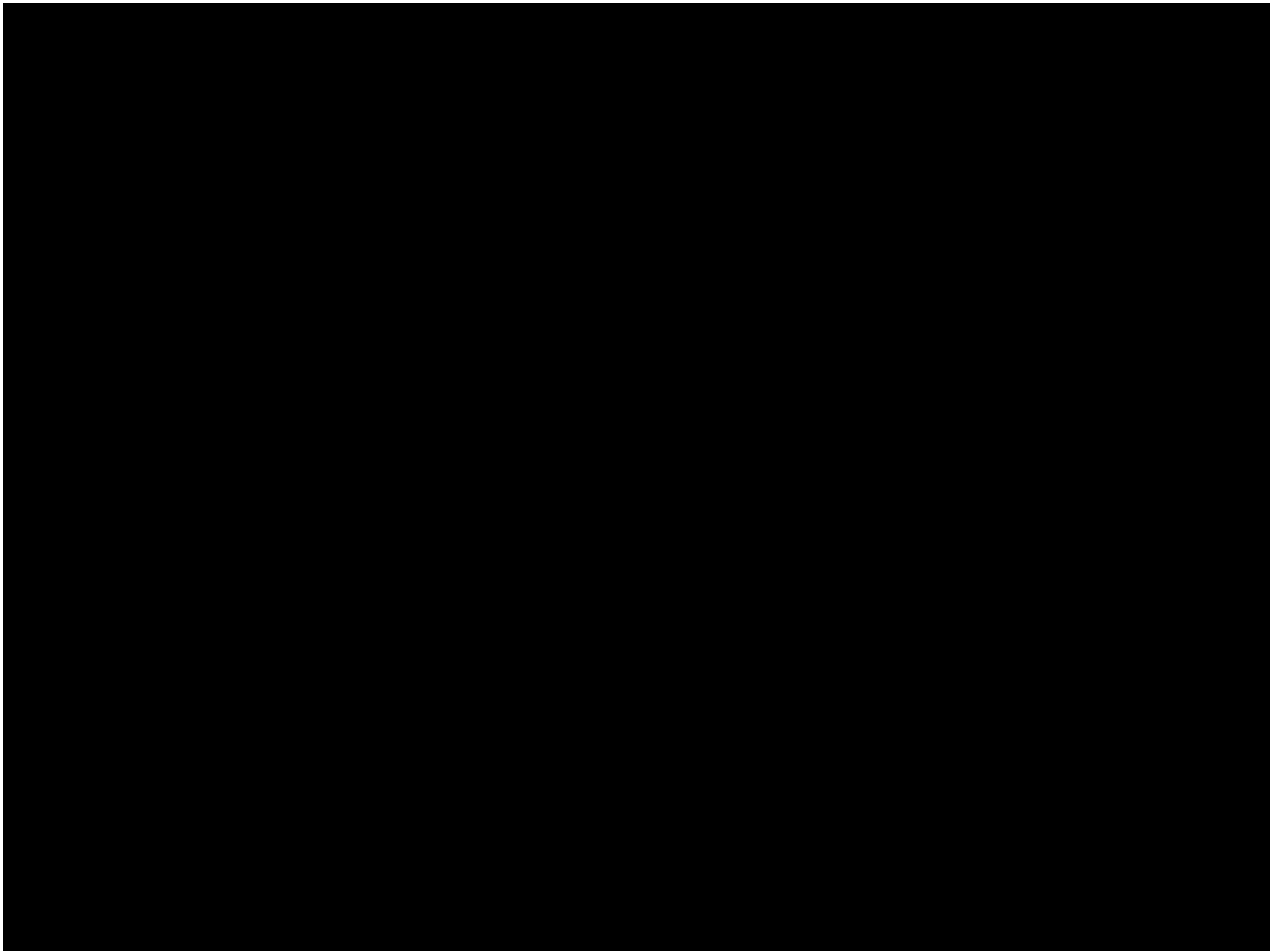


### Photos and Diagrams of Events



*Figure 1 - Google Earth Diagram of the Lamont 1104 12kV Circuit. Location of fires is approximate based on reports and pictures provided.*





*Figure 2 - EDGIS Diagram of the Lamont 1104 12kV Circuit and upstream dynamic protective devices between Substation and Incident location.*



*Figure 3 - Fire burn scar area with the mylar balloon remnants found in the conductor above this possible origin location. Please note, that previous pole clearing at this location prevented the fire encroaching our asset SAP Pole ID: 100188521. Picture taken by the troubleshooter on May 18, 2024*





*Figure 4 – Ignition and Fire origin area with the mylar balloon remnants found in the conductor that led to the cause of ignition. Picture taken by the troubleshooter on May 18, 2024.*



*Figure 5 - Mylar balloon remnants found that led to the cause of ignition. Picture taken by the troubleshooter on May 18, 2024.*

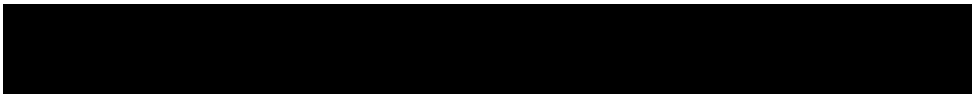




*Figure 6 - Kern County Fire Department onsite to assist in controlling and suppressing the fire spread, picture taken by the troubleshooter on May 18, 2024.*

## Attachments

Attachments and references can be located in the ESA folder, located below:



-----END of REPORT-----